(U) CRYPTOLOGIC ALMANAC

The First "Think Tank"

(TS//COMINT) When he took office, President Dwight Eisenhower believed the USSR was preparing for a sneak atomic attack on the United States. Having been a heavy user of decrypts of high-level German messages during World War II, Eisenhower also believed that the most likely warning of any impending attack would come from communications intelligence.

(TS//COMINT) Eisenhower used staff assignments and outside expertise as an aid to his decision-making. Over the course of his administration, the president created a number of panels of scientists and/or military officers to study the intelligence community. Among them, he asked Dr. William O. Baker of Bell Research Laboratories to look at the state of NSA's operations against Soviet targets and make recommendations on how to improve them.

(TS//COMINT) One important recommendation of the Baker Panel in 1958 was to establish a cryptanalytic think tank to apply an academic model to the study of high-level Soviet ciphers. At first, the proposal was to split NSA into an organization for long-term study of high-level Soviet systems and a second group to produce intelligence from low-level systems and traffic analysis. NSA officials managed to convince the National Security Council that any such division was a poor idea, since success at high-level systems often required knowledge of other systems.

(TS//COMINT) The director of NSA, General John Samford, worked with retired General Graves B. Erskine, Assistant to the Secretary of Defense for Special Operations, to examine options for location of a think tank. Eventually, Samford selected the Institute for Defense Analyses (IDA) in Princeton, New Jersey, which already engaged in defense research and where an existing DoD contract could be used.

(U) When the IDA Board of Trustees met in the Pentagon in late 1957, NSA Deputy Director Dr. Howard Engstrom presented them with a proposal to do directed research on behalf of the Agency. In subsequent "considerable discussion," the IDA board questioned whether commitments to NSA would interfere with other obligations.

(TS//COMINT) Deputy Secretary of Defense Donald A. Quarles told IDA that President

Eisenhower had approved the concept of a contract research organization in an academic environment for NSA. With this, IDA accepted the proposal in June, and a contract was cut through the Office of Naval Research for a research institute tied to NSA.

(TS//COMINT) The IDA contract began in October 1958. Initially, the organization employed 25 technical people, with a support component of 15. In May 1958 Dr. James Killian, Eisenhower's science advisor, interviewed four candidates for the job of director and appointed Dr. J. Barclay Rosser from Cornell University. Rosser served two years and was replaced by Professor A. A. Albert from the University of Chicago.

(TS//COMINT) To ensure that IDA operations really did support NSA projects, General Samford asked Dr. Richard Leibler, an NSA mathematician, to go to Princeton as deputy chief. In fact, Samford asked Leibler to resign to take the position, promising him there would be an NSA job for him after IDA, if he wanted it. After Dr. Albert retired, Leibler became chief. (After several years, the operations were "integrated," and it no longer became necessary to resign from NSA to work at IDA.)

(TS//COMINT) The initial two-year funding was pegged at [redacted] The institute leased a new building for ten years from Princeton University and installed a high-speed computer. (b)(1) (b)(3)-P.L. 86-36

(U//FOUO) The Research and Development key component at NSA was given responsibility for formatting problems to be forwarded to the Research Institute. Among problems studied in the early days were [redacted]

(U) Unusual in the NSA experience and extending its reach, the institute also convened a number of unclassified symposiums in cooperation with the American Mathematical Society. Classified gatherings were also held to consider specific mission-oriented problems.

(TS//COMINT) The institute over the decades since, in fact, has made some significant contributions to cryptanalysis, communications security, and computer development, and it was recognized at Fort Meade. Looking back at its history, Dr. Louis W. Tordella, NSA's longest-serving deputy director, in an interview after his retirement, commented that the institute "has paid for itself several times over."

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